

Application No. 10/588,701
Amendment dated December 12, 2007
Reply to Office Action of October 9, 2007

Docket No. 0038-0496PUSI
Art Unit:0038-0496PUSI
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AMENDMENTS TO THE DRAWINGS

The Applicants have attached One Sheet of Replacement Drawings (FIG. 6) in order to properly label insulator 51.

REMARKS

The Applicants thank the Examiner for the thorough consideration given the present application. Claims 1-12 are pending, of which claims 5-12 are withdrawn. Claims 1, 2, 4, 5, and 9 are amended. Claims 1 and 9 are independent. The Examiner is respectfully requested to reconsider the rejections in view of the amendments and remarks set forth herein.

Examiner Interview

If, during further examination of the present application, any discussion with the Applicant's Representative would advance the prosecution of the present application, the Examiner is encouraged to contact Carl T. Thomsen, Registration No. 50,786, at 1-703-208-4030 (direct line) at his convenience.

Objection to the Drawings

In response to the Examiner's objection, the Applicants have attached One Sheet of Replacement Drawings (FIG. 6) in order to properly label insulator 51.

Claim for Priority

It is gratefully appreciated that the Examiner has acknowledged the Applicants' claim for foreign priority.

Information Disclosure Citation

The Applicants thank the Examiner for considering the reference supplied with the Information Disclosure Statement filed august 8, 2006, and for providing the Applicants with an initialed copy of the PTO form filed therewith.

Restriction Requirement

The Examiner has made the Restriction Requirement final, and has withdrawn claims 5-12 from further consideration. The Applicants reserve the right to file a divisional application directed to claims 5-12 at a later date if so desired.

Amendments to the Specification

The Examiner has objected to specification because of informalities. In order to overcome this objection, the Applicants have amended the specification in order to correct the deficiencies pointed out by the Examiner. Reconsideration and withdrawal of this objection are respectfully requested.

Rejections Under 35 U.S.C. §103(a)

Claims 1 and 4 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Katatura et al. (U.S. 5,241,229) in view of Schulte et al. (U.S. 4,118,644);

claim 2 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Katatura et al. (U.S. 5,241,229) in view of Schulte et al. (U.S. 4,118,644) and further in view of Cazal et al. (U.S. 5,62,575); and

claim 3 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Katatura et al. (U.S. 5,241,229) in view of Schulte et al. (U.S. 4,118,644), and further in view of Miller et al. (U.S. 6,069,432).

These rejections are respectfully traversed.

Amendments to Independent Claim 1

While not conceding the appropriateness of the Examiner's rejection, but merely to advance prosecution of the present application, independent claim 1 has been amended herein to recite a combination of elements directed to a motor drive device having a motor with an inner rotor, the motor drive device being provided to a motor drive section for opening and closing a sunroof of a motor vehicle, comprising:

a stator core enclosing a space and being constituted by coils, which are respectively wound on stator teeth; and

a motor shaft being provided in the space, equipped with a rotor magnet and rotatably held by a motor case,

wherein one end the motor shaft includes a worm section connected to a speed reduction unit, and an opposite end of the motor shaft is held by a thrust holder provided to a lid,

wherein the motor shaft is inserted into said motor case, with the worm section leading, and pierces through the stator core, and

wherein one axial end surface of said stator core is butted against an inner wall surface of said motor case,

said stator core being urged toward one axial end surface side from an opposite axial end surface side, and

said stator core being fixed in said motor case by fitting the lid in the opening section of said motor case.

In contrast to the present invention as set forth in independent claim 1, the references cited by the Examiner are deficient at least for the following reasons:

Regarding Katakura et al.

The Katakura et al. merely disclose an outer rotor type motor. The motor is used to drive magnetic disks, so the Katakura et al. is directly irrelevant to the technical idea of closing a motor case with a lid. In Katakura et al., a stator core is butted against a part of the motor case, but a motor shaft is held by a thrust holder. Therefore, the stator core need not be fixed by being urged in the axial direction, as set forth in independent claim 1.

Regarding Schulte et al.

As shown in Fig. 3, Schulte et al. do not disclose fitting a lid in a motor case. A stator core is clamped, from the both sides, by a housing which is plane-symmetrically formed with respect to an axial line, so that the stator core can be centered in the axial direction (please see column 4, line 10-25). The Schulte et al. do not disclose correctly positioning the stator core by urging in the axial direction, as set forth in independent claim 1.

Regarding Cazal et al.

In Cazal et al., a stator 12 is pressed, by a centering rubber ring 52, in the radial direction so as to correctly position the stator 12 with respect to a casing 18 (please see column 3, line 57-58 and column 4, line 50-52). When annular end surfaces 40 and 42 of the casings 16 and 18 are connected by tightening studs 44, variations of clamping capacities of the bolts 44 can be absorbed by deformation of a cushion block 62, and the position in the axial direction is defined by a parting face P (please see column 4, line 41-44).

In Cazal et al. the stator 12 is correctly positioned, with respect to the casings 16 and 18, in the radial direction and the axial direction, by clamping the stator 12 between the centering ring 52 and the cushion block 62. Therefore, positioning the stator 12 with respect to the casings is relatively performed. Namely, Cazal et al. do not disclose positioning the stator by butting the stator against a standard face of the motor case in the axial direction and pressing the stator from the opposite side as set forth in independent claim 1.

Regarding Miller et al.

In Miller et al., a similar snap-fit structure is disclosed, but a motor structure of Miller et al. is different from that of the present application.

At least for the reasons explained above, the Applicants respectfully submit that the combination of elements as set forth in independent claim 1 is not disclosed or made obvious

by the prior art of record, including Katakura et al., Schulte et al., Cazal et al., and Miller et al.

Therefore, independent claim 1 is in condition for allowance.

Dependent Claims

The Examiner will note that dependent claims 2 and 4 have been amended.

All dependent claims are in condition for allowance due to their dependency from allowable independent claims, or due to the additional novel features set forth therein.

Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. §103(a) are respectfully requested.

CONCLUSION

Since the remaining patents cited by the Examiner have not been utilized to reject claims, but merely to show the state of the art, no comment need be made with respect thereto.

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. It is believed that a full and complete response has been made to the outstanding Office Action, and that the present application is in condition for allowance.

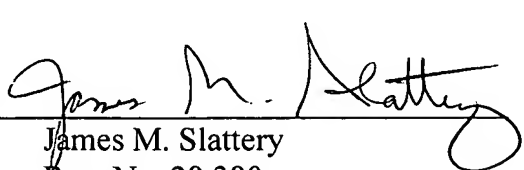
If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, he is invited to telephone Carl T. Thomsen (Reg. No. 50,786) at (703) 208-4030(direct line).

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly extension of time fees.

Dated: December 12, 2007

Respectfully submitted,
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